

**REMARKS / ARGUMENTS**

Claims 1-41 are pending in the instant application. Claims 29-32 and 34 have been amended to further clarify the language. The Applicant submits that the claims 1-41 define patentable subject matter in view of the following remarks and arguments.

Claims 18, 20, 22-29, 31, 32 and 36-41 are rejected under 35 USC 102(e) as anticipated by Philbrick et al. (US Pub. No. 2001/0037406, hereinafter Philbrick).

Claims 1-15 are rejected under 35 USC 103(a) as being unpatentable over Applicant's Admitted Prior Art (background of the invention and FIG. 1-5, hereinafter AAPA), and further in view of Philbrick.

Claims 33-35, 30 are rejected under 35 USC 103(a) as being unpatentable over Philbrick as applied to claim 26 above, and further in view of Microsoft (Winsock Direct and Protocol Offload on SANs, 03/03/2001).

Claims 16-17 are rejected under 35 USC 103(a) as being unpatentable over AAPA-Philbrick, as applied to claims 1 and 14 above, and further in view of Microsoft.

Claims 19 and 21 are rejected under 35 USC 103(a) as being unpatentable over Philbrick, in view of what has been known in the art.

# I. EXAMINER'S RESPONSE TO ARGUMENTS IN THE OFFICE ACTION

The Examiner in claim 18 disagrees with the Applicant that Philbrick does not teach "a single Ethernet connector ... concurrently handle a plurality of different types of traffic." The Examiner relies for support on Philbrick ¶0065 lines 15-17 and argues that Philbrick's MAC controller 424 is an alleged single L2 SAN connector. The Examiner maintains that Philbrick teaches the MAC controller 424 (the alleged single Ethernet connector), which can run SCSI protocol (the alleged first traffic type) over TCP/IP protocol (the alleged second traffic type), also referred as the iSCSI traffic type, to read on the "a single Ethernet connector ... concurrently handle a plurality of different types of traffic," as recited in claim 18 by the Applicant. In other words, the Examiner seems to allege that the iSCSI traffic type is not a single traffic type, but instead are two traffic types, i.e., the SCSI storage as the first traffic type, over the internet TCP/IP network traffic as the second traffic type.

The Applicant respectfully disagrees with the Examiner's interpretation that there are two traffic types within the iSCSI traffic type. The Examiner is specifically referred to the disclosure of iSCSI by Satran's internet Draft Document: draft-ietf-ips-iscsi-07.txt (hereinafter referred as "Satran"), which is incorporated by reference in Philbrick's ¶0065. Specifically, Satran in section 1.2 discloses that "the **iSCSI protocol is a mapping** of the **SCSI remote procedure invocation model over the TCP protocol.**" In the same section, Satran also teaches such iSCSI communication protocol is sent in the form of a communication message, referred to the term "iSCSI protocol data unit"

(iSCSI PDU). In other words, Satran clearly teaches that the iSCSI is a protocol that maps the SCSI protocol over the TCP protocol, and such protocol is communicated through a message type, which is also known as a **iSCSI PDU message**. Therefore, **there is only one type of traffic sent through the iSCSI protocol, i.e., the iSCSI PDU messages**.

Therefore, based on the citation of Satran in section 1.2, the Applicant submits that the Examiner's interpretation that the iSCSI protocol (communicated in the form of iSCSI PDU message) is communicated in two traffic types (or in two message types), i.e. using both the SCSI message and the TCP message, is contrary to the disclosure of Satran. Accordingly, the Applicant respectfully maintains that **Philbrick does not anticipate the Applicant's limitation of "a single Ethernet connector ... concurrently handle a plurality of different types of traffic,"** as recited by the Applicant in claim 18. Claim 18 should therefore be allowable based on the above rationale.

Likewise, independent claims 1, 26, 33, 36 and 39 are similar in many respects to claim 18, are therefore submit to be allowable for the same rationale presented in claim 18.

## **II. REJECTION UNDER 35 U.S.C. § 102**

MPEP 2131 states:

“[a] claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” See MPEP at 2131 (internal citation omitted). Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” See *id.* (internal citation omitted).

### **A. Philbrick Does Not Anticipate Claims 18, 20, 22-29, 31, 32 and 36-41**

The Applicant turns to the rejection of claims 18, 20, 22-29, 31-32 and 36-41 under 35 U.S.C. § 102(e) as being anticipated by Philbrick. Without conceding that Philbrick qualifies as prior art under 35 U.S.C. 102(e), the Applicant respectfully traverses this rejection as follows.

#### **A(1) Independent Claims 18, 26, 36 and 39**

With regard to the rejection of independent claim 18 under 35 U.S.C. § 102(e), the Applicant submits that Philbrick does not disclose or suggest at least the limitation of “a single Ethernet connector, ...can concurrently handle a plurality of different types of traffic,” as recited in Applicant’s claim 18.

In the Office Action, the Examiner asserts that Philbrick discloses the following:

“an Ethernet connector coupled to the integrated chip ([0066] lines 12-15, Ethernet connector 424 which is a MAC controller)” wherein the Ethernet connector and the integrated chip can handle a plurality of different types of traffic ([0065] lines 15-21, iSCSI and TCP/IP).”

See the Office Action, page 6. The Examiner relies for support on the following citation of Philbrick:

“SANS 418 and 420 may run a storage protocol such as SCSI over TCP/IP or SCSI Encapsulation Protocol (SEP). One such Protocol is described by Satran...entitled iSCSI...”

See Philbrick at ¶[0065], lines 15-21. The Examiner seems to allege that the iSCSI traffic type is not a single traffic type, but instead are two traffic types, i.e., the SCSI storage as the first traffic type, over the internet TCP/IP network traffic as the second traffic type. The Applicant refers the Examiner to the same argument in Section I above, and respectfully disagrees with the Examiner's interpretation that there are two traffic types within the iSCSI traffic type. The Examiner is specifically referred to the disclosure of iSCSI by Satran's internet Draft Document: draft-ietf-ips-iscsi-07.txt (hereafter referred as "Satran"), which is incorporated by reference in Philbrick's ¶[0065]. Specifically, Satran in section 1.2 discloses that **“the iSCSI protocol is a mapping of the SCSI remote procedure invocation model over the TCP protocol.”** In the same section, Satran also teaches such iSCSI communication protocol is sent in the form of a communication message, referred to the term “iSCSI protocol data unit” (iSCSI PDU). In other words, Satran clearly teaches that **the iSCSI is a protocol** that maps the SCSI protocol over the TCP protocol, and such protocol is **communicated through a**

message type, which is also known as a iSCSI PDU message. Therefore, there is only one type of traffic sent through the iSCSI protocol, i.e., the iSCSI PDU messages.

Therefore, based on the citation of Satran in section 1.2, the Applicant submits that the Examiner's interpretation that the iSCSI protocol (communicated in the form of iSCSI PDU message) is communicated in two traffic types (or in two message types), i.e. using both the SCSI message and the TCP message, is contrary to the disclosure of Satran. Accordingly, the Applicant respectfully maintains that Philbrick does not anticipate the Applicant's limitation of "a single Ethernet connector ... concurrently handle a plurality of different types of traffic," as recited by the Applicant in claim 18. Claim 18 should therefore be allowable based on the above rationale. The Applicant respectfully requests that the rejection of independent claim 18 under 35 U.S.C. § 102(e) be withdrawn. Furthermore, The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of independent claim 18 should such a need arise.

Likewise, independent claims 26, 36 and 39 are similar in many respects to claim 18, and are therefore submitted to be allowable for the same rationale presented in claim 18.

**A(2) Dependent Claims 20 and 22-25, 27-29, 31-32, 37-38 and 40-41**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 18, 26, 36 and 39 under 35 U.S.C. § 102(e) as being anticipated by Philbrick has been overcome and requests that the rejection be withdrawn. Additionally, claims 20 and 22-25, 27-29, 31-32, 37-38 and 40-41 depend directly or indirectly from independent claims 18, 26, 36 and 39 and are, consequently, also respectfully submitted to be allowable.

In addition, with regard to the rejection of claim 25, the Examiner is referred to the same rationale in Section I, that **the iSCSI traffic is a single type of traffic comprising iSCSI PDU messages**. Philbrick does not disclose the claimed limitation of other traffic types, i.e. the IPC traffic or the cluster traffic, that are concurrently handled by the Ethernet connector and the integrated chip. Claim 25 is therefore allowable. Likewise, claims 38 and 41 are allowable for the same rationale as in claim 25.

Furthermore with regard to the rejection of claim 37, the Examiner relies for support on Fig. 6 and alleges that the processor 408, which is one of the chips within the INIC 400 (the alleged L2 NIC), is the integrated chip. In other words, **Philbrick discloses that the INIC 400 comprises the integrated chip processor 408, instead of the integrated chip processor 408 comprises the INIC 400**, as asserted by the Examiner. Therefore, Philbrick does not disclose the claim limitation of "an integrated

chip that comprises a L2 NIC, a TCP processor, an iSCSI processor and a RDMA processor,” as recited in claim 37 by the Applicant. Claim 37 is therefore allowable. Likewise, claim 40 is allowable for the same rationale as in claim 37.

The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 20 and 22-25, 27-29, 31-32, 37-38 and 40-41 should such a need arise.

### III. REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure (“MPEP”) states the following:

“First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the teaching. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure.”

See MPEP at § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added). Further, MPEP § 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination,” and that “although a prior art device ‘may be capable of being modified to run the way the apparatus is claimed, there must be a *suggestion or motivation in the reference* to do so’” (citing *In re Mills*, 916



F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). Moreover, MPEP § 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion...,” citing *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

**A. The Proposed Combination of AAPA and Philbrick Does Not Render Claims 1-15 Unpatentable**

The Applicant turns to the rejection of claims 1-15 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Philbrick.

**A(1). Independent Claim 1**

With regard to the final rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of AAPA and Philbrick does not disclose or suggest at least the limitation of “wherein one or more of the first server, the second server and/or the third server handles a plurality of different traffic types

concurrently over a single fabric using a single connector,” as recited in claim 1 by the Applicant.

The Examiner concedes that:

“AAPA does not disclose: wherein at least one of the first server, the second server and the third server handles a plurality of different traffic types over a single fabric.”

See the Office Action in page 7. The Examiner then turns to Philbrick for support and states the following:

“However, Philbrick discloses: wherein at least one of the first server, the second server and the third server handles a plurality of different traffic types **over a single fabric** (fig. 6, a server handles iSCSI and TCP/IP over a single fabric connecting the Ethernet connector 424 and processor 408).”

See the Office Action in page 8. The Applicant again refers the Examiner to the same argument in Section I above, and respectfully disagrees with the Examiner’s interpretation that there are two traffic types within the iSCSI traffic type. The Examiner is specifically referred to the disclosure of iSCSI by Satran’s internet Draft Document: draft-ietf-ips-iscsi-07.txt (hereafter referred as “Satran”), which is incorporated by reference in Philbrick’s ¶0065. Specifically, Satran in section 1.2 discloses that “the **iSCSI protocol is a mapping** of the **SCSI remote procedure invocation model over the TCP protocol.**” In the same section, Satran also teaches such iSCSI communication protocol is sent in the form of a communication message, referred to the term “iSCSI protocol data unit” (iSCSI PDU). In other words, Satran clearly teaches that

the iSCSI is a protocol that maps the SCSI protocol over the TCP protocol, and such protocol is communicated through a message type, which is also known as a **iSCSI PDU message**. Therefore, **there is only one type of traffic sent through the iSCSI protocol, i.e., the iSCSI PDU messages**.

Therefore, based on the citation of Satran in section 1.2, the Applicant submits that the Examiner's interpretation that the iSCSI protocol (communicated in the form of iSCSI PDU message) is communicated in two traffic types (or in two message types), i.e. using both the SCSI message and the TCP message, is contrary to the disclosure of Satran. Accordingly, the Applicant respectfully maintains that **Philbrick does not anticipate the Applicant's limitation of "a single Ethernet connector ... concurrently handle a plurality of different types of traffic,"** as recited by the Applicant in claim 18. Claim 18 should therefore be allowable based on the above rationale. The Applicant respectfully requests that the rejection of independent claim 1 under 35 U.S.C. § 103(a) be withdrawn.

In addition, in page 2 of the Examiner's response to arguments, the Examiner argues that the single fabric for the server can be any **single path containing two traffics from the alleged L2 connector MAC 424** to the INIC 400, as long as the INIC is connected **to any server**. The Applicant argues that Philbricks' alleged path, i.e., the PCI bus connecting the alleged L2 connector MAC 424 to the processor 408, cannot be the single fabric, since **the processor 408 is not a server**. Furthermore, **Philbrick does not disclose that** the alleged single fabric, i.e. **the PCI bus** connecting the

alleged L2 Ethernet connector MAC 424 and processor 408 concurrently **handles more than one type of traffic** (i.e., the iSCSI PDU messages is a single type of traffic communicating via the iSCSI protocol, see Satran section 1.2).

Therefore, the Applicant maintains that the combination of AAPA and Philbrick does not establish a prima facie case of obviousness under 35 U.S.C. § 103(a) to reject the claimed limitation of "...handles a **plurality of different traffic types concurrently over a single fabric using a single connector**," as recited in claim 1 by the Applicant. The Applicant respectfully requests that the rejection of independent claim 1 under 35 U.S.C. § 103(a) be withdrawn. Furthermore, The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of independent claim 1 should such a need arise.

## **A(2) Dependent Claims 2-15**

Based on at least the foregoing, the Applicant believes the rejection of the amended independent claim 1 under 35 U.S.C. § 103(a) as being rendered obvious by combining AAPA and Philbrick has been overcome and requests that the rejection be withdrawn. Additionally, claims 2-15 depend from the amended independent claims 1, and are, consequently, also respectfully submitted to be allowable and requests that the rejection under 35 U.S.C. § 103(a) be withdrawn.

The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 2-15 should such a need arise.

**B. The Proposed Combination over Philbrick and Microsoft Does Not Render Claims 33-35, 30 Unpatentable**

The Applicant turns to the rejection of claims 33-35, 30 under 35 U.S.C. § 103(a) as being unpatentable over Philbrick as applied to claim 26 above, and further in view of Microsoft.

**B (1) Independent Claim 33**

With regard to the rejection of independent claim 33 under 35 U.S.C. § 103(a), the Applicant submits that claim 33 and claim 26 are similar in scope and in many respect. The Applicant submits that the same arguments in Section 1, and also to claim 26 are applicable to claim 33. Specifically, Philbrick's alleged single fabric, i.e. the path connecting the alleged single layer L2 connector MAC 424 to the SAN 418, handles a single type of traffic, i.e., the iSCSI PDU messages. Therefore, the Applicant maintains that Philbrick does not disclose or suggest "said single fabric ... concurrently handle a plurality of different types of traffic," as recited in claim 33 by the Applicant. Microsoft does not overcome the limitation deficiency in Philbrick.

Accordingly, the Applicant maintains that the combination of Philbrick and Microsoft does not disclose or suggest at least the limitation of "said **single fabric** ...

**concurrently handle a plurality of different types of traffic,"** as recited in Applicant's claim 33. Therefore, a prima facie case of obviousness cannot be established to reject claim 33, therefore claim 33 should be allowable. The Applicant respectfully requests that the rejection of claim 33 under 35 U.S.C. § 103(a) be withdrawn. Furthermore, the Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of claims 33 should such a need arise.

**B(2) Dependent Claims 34-35 and 30**

Based on at least the foregoing, the Applicant believes the rejection of the independent claims 26 and 33 have been overcome. Additionally, claims 30 and 34-35 depend from the respective independent claims 26 and 33, and are, consequently, also respectfully submitted to be allowable and requests that the rejection under 35 U.S.C. § 103(a) be withdrawn. The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 30 and 34-35 should such a need arise.

**C. The Proposed Combination of AAPA-Philbrick-Microsoft Does Not Render Claims 16, 17, 19 and 21 Unpatentable**

The Applicant submits that respective dependent claims 16, 17, 19 and 21 depend directly or indirectly from the respective amended independent claims 1 and 18, and are allowable for at least the same rationale as discussed above for the respective

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amended independent claims 1 and 18. Accordingly, the Applicant respectfully submits that dependent claims 16, 17, 19 and 21 are also allowable and requests that the rejection under 35 U.S.C. § 103(a) be withdrawn.

The Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 16, 17, 19 and 21 should such a need arise.

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### **CONCLUSION**

Based on at least the foregoing, the Applicant believes that all pending claims 1-41 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

Date: July 24, 2008

/ Frankie W. Wong /  
Registration No. 61,832  
Patent Agent for Applicant

McANDREWS, HELD & MALLOY, LTD.  
500 WEST MADISON STREET, 34TH FLOOR  
CHICAGO, ILLINOIS 60661  
(312) 775-8093 (FWW)